

CLAIMS

1. A reflector for an electronic flash device, comprising:
a pair of first reflective surfaces that are composed of portions of a cylindrical curved surface and face one another;
and

a second reflective surface that is contiguous with said pair of first reflective surfaces and in an inside portion of which a light source is housed,

wherein contiguous portions where said pair of first reflective surfaces and said second reflective surface are contiguous are set closer to an opening of said pair of first reflective surfaces than a center portion of the housed light source.

2. A reflector for an electronic flash device according to claim 1, wherein said second reflective surface comprises:

a cylindrical surface portion that is cylindrical and is produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that are provided as portions of said cylindrical surface portion and are substantially parallel with a center plane about which said pair of first reflective surfaces are symmetrical; and

a pair of inclined flat surface portions that are provided as portions of said cylindrical surface portion, that extend in

tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said cylindrical surface portion, and extend as far as second intersection portions where said parallel flat surface portions are intersected.

3. A reflector for an electronic flash device according to claim 1, wherein a distance between the contiguous portions where said pair of first reflective surfaces and said second reflective surface are contiguous is smaller than a diameter of said cylindrical surface portion that forms part of said second reflective surface.

4. A reflector for an electronic flash device according to claim 1, wherein said second reflective surface is formed in an oval shape so that a position of the light source can be moved and adjusted along the center plane.

5. A reflector for an electronic flash device according to claim 1, wherein said second reflective surface comprises:

a curved surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that extend substantially parallel with a center plane from perpendicular

intersection portions where the radius of curvature intersects a perpendicular plane that passes the center portion and is perpendicular to the center plane; and

a pair of inclined flat surface portions that are contiguous with ends of said curved surface portion, extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said curved surface portion, and extend as far as second intersection portions where said parallel flat surface portions are intersected.

6. A reflector for an electronic flash device according to claim 1, wherein said second reflective surface comprises:

an oval cylindrical surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that are provided as portions of said cylindrical surface portion and are substantially parallel with a center plane about which said pair of first reflective surfaces are symmetrical; and

a pair of inclined flat surface portions that are provided as portions of said cylindrical surface portion, that extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said cylindrical surface portion, and

extend as far as second intersection portions where said parallel flat surface portions are intersected.

7. A reflector for an electronic flash device according to claim 1, wherein said second reflective surface comprises:

a first curved surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a second curved surface portion that passes the contiguous portions and is obtained by displacing a center of a radius of curvature either closer to or further from the contiguous portions than the center portion of the light source; and

a pair of inclined portions that are contiguous with both sides of said first curved surface portion, extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said first curved surface portion, and extend as far as said second curved portion that intersects a perpendicular plane that passes the center portion and is perpendicular with the center plane.

8. A reflector for an electronic flash device according to claim 7, wherein the center portion of the radius of curvature of said second curved surface portion is set at a point of intersection perpendicularly dropped to the center plane from

the first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said first curved surface portion, or at a point of intersection near said point of intersection.

9. An electronic flash device comprising:

a light source; and

a reflector that reflects light emitted from said light source on a reflective surface thereof,

wherein said reflector includes:

a pair of first reflective surfaces that form part of a cylindrical curved surface and face one another; and

a second reflective surface that is contiguous with said pair of first reflective surfaces and in an inside portion of which the light source is housed, and

contiguous portions where said pair of first reflective surfaces and said second reflective surface are contiguous are set closer to an opening in said pair of first reflective surfaces than a center portion of the housed light source.

10. An electronic flash device according to claim 9,

wherein said second reflective surface comprises:

a cylindrical surface portion that is cylindrical and is produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that are provided as portions of said cylindrical surface portion and are substantially parallel with a center plane about which said pair of first reflective surfaces are symmetrical; and

a pair of inclined flat surface portions that are provided as portions of said cylindrical surface portion, that extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said cylindrical surface portion, and extend as far as second intersection portions where said parallel flat surface portions are intersected.

11. An electronic flash device according to claim 9, wherein a distance between the contiguous portions where said pair of first reflective surfaces and said second reflective surface are contiguous is smaller than a diameter of said cylindrical surface portion that forms part of said second reflective surface.

12. An electronic flash device according to claim 9, wherein said second reflective surface is formed in an oval shape so that a position of the light source can be moved and adjusted along the center plane.

13. An electronic flash device according to claim 9,

wherein said second reflective surface comprises:

a curved surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that extend substantially parallel with a center plane from perpendicular intersection portions where the radius of curvature intersects a perpendicular plane that passes the center portion and is perpendicular to the center plane; and

a pair of inclined flat surface portions that are contiguous with ends of said curved surface portion, extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said curved surface portion, and extend as far as second intersection portions where said parallel flat surface portions are intersected.

14. An electronic flash device according to claim 9, wherein said second reflective surface comprises:

an oval cylindrical surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a pair of parallel flat surface portions that are provided as portions of said cylindrical surface portion and are substantially parallel with a center plane about which said pair

of first reflective surfaces are symmetrical; and

a pair of inclined flat surface portions that are provided as portions of said cylindrical surface portion, that extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said cylindrical surface portion, and extend as far as second intersection portions where said parallel flat surface portions are intersected.

15. An electronic flash device according to claim 9, wherein said second reflective surface comprises:

a first curved surface portion produced by setting the center portion of the light source as a center of a radius of curvature;

a second curved surface portion that passes the contiguous portions and is obtained by displacing a center of a radius of curvature either closer to or further from the contiguous portions than the center portion of the light source; and

a pair of inclined portions that are contiguous with both sides of said first curved surface portion, extend in tangential directions from first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said first curved surface portion, and extend as far as said second curved portion that intersects a perpendicular plane that passes the center portion and is perpendicular with

the center plane.

16. An electronic flash device according to claim 15, wherein the center portion of the radius of curvature of said second curved surface portion is set at a point of intersection perpendicularly dropped to the center plane from the first intersection portions where extensions of lines that join the contiguous portions and the center portion intersect said first curved surface portion, or at a point of intersection near said point of intersection.